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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,719	02/05/2002	Johannes Hendrik Koegler	1094-18	7290

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EXAMINER

SAMPLE, DAVID R

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/067,719

Applicant(s)

KOEGLER ET AL.

Examiner

David Sample

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-23 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-19 and 24-28 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## ETAILED ACTION

### *Specification*

The abstract is objected to for being greater than 150 words. See MPEP 608.01(b). A new abstract on a separate sheet must be presented in response to this action.

### *Claim Rejections - 35 U.S.C. § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24-26 are rejected under 35 U.S.C. § 102(b) as anticipated by Rundell et al. (US Patent No. 3,777,006).

Rundell et al. discloses a zeolite X which has a  $\text{SiO}_2/\text{Al}_2\text{O}_3$  ratio of 2.5 and a particle size between 0.01 and 0.05  $\mu\text{m}$  (i.e., 10-50 nm). See col. 4, lines 15-20.

Claims 24-28 are rejected under 35 U.S.C. § 102(b) as anticipated by Kuehl et al. (EP 435 625).

Kuehl et al. discloses a faujasite zeolite having a  $\text{SiO}_2/\text{Al}_2\text{O}_3$  ratio of 2.9 and 4.5 and a Crystal size of less 0.05  $\mu\text{m}$  or between 0.05 and 0.1  $\mu\text{m}$  (i.e., 50-100 nm). See page 3, Examples 1 and 2, lines 33-34 and 53-54.

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As to the recitations that the zeolite be zeolite Y, Kuehl et al. discloses that an x-ray diffraction pattern of the inventive zeolite showed "faujasite with extensive line broadening compared to conventional NaY ...." This statement implies that the inventive zeolite is zeolite Y among the various species of faujasite. For this reason, the zeolite of Kuehl is presumed to inherently possess the zeolite Y structure. See MPEP 2112.

As to the recitations that the zeolite Y has a unit cell dimension of less than 25 Å, the  $\text{SiO}_2/\text{Al}_2\text{O}_3$  ratio of a zeolite determines its unit cell size. In the present case, the  $\text{SiO}_2/\text{Al}_2\text{O}_3$  ratio of the reference is identical to the presently claimed ratio. Therefore, the claimed unit cell size is assumed to be inherent to the zeolite of the reference. See MPEP 2112.

Claims 1-5, 8-19 and 24-28 are rejected under 35 U.S.C § 102(b) as anticipated by Murrell et al. (US 6,004,527).

Murrell et al. discloses a method of making a zeolite wherein an inorganic oxide is impregnated to "incipient wetness" with a solution containing a directing agent. See, e.g., col. 19, lines 23-39. The directing agent is an organic ammonium such as tetraethylammonium ions as in Example 1, or NaOH as in Example 9. The impregnated oxide is then reacted to form the zeolite. See, e.g., col's 11-12, lines 33-28, and Examples 1-10.

Murrell et al. does not specifically describe the amount of impregnating liquid as compared to the pore volume of the inorganic oxide. However, Murrell et al. describes impregnation to the degree that "surface gelation" is avoided. See col. 8, lines 33-63. This description appears to be identical to the presently described impregnation degree. Compare col. 8, lines 33-63 of the reference with page 8, line 22 to page 9, line 10 of the specification. Thus,

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the impregnation described by the claims is presumed to be inherent to the process of Murrell et al.

The impregnating liquid of Murrell et al. contains the directing agent in an amount of 35 wt% tetraethylammonium hydroxide (Examples 1-5), 35 wt% tetrapropylammonium hydroxide (Example 6), 40 wt% tetrapropylammonium hydroxide (Examples 7 and 8) or 20 wt% NaOH solution (Examples 9 and 10). "20 wt% NaOH" is deemed to anticipate the range "about 21 to about 60% by weight" in view of the latitude in interpreting the word "about" in claims.

As to claims 2, the reference discloses washing and drying at col. 15, lines 35-40.

The recitations of instant claim 3-5, 8-12, 14-19 can be found in the reference at least in Example 9.

The recitations of instant claim 13 can be found in the reference in Examples 7 and 8 where the reference discloses an impregnation liquid having 40 wt% tetrapropylammonium hydroxide. 40 wt% is "about" 45% in view of the latitude in interpreting the word "about" in claims.

The recitations of instant claims 24-28 can be found in the reference in Example 9. The  $\text{SiO}_2/\text{Al}_2\text{O}_3$  and unit cell size are assumed to be inherent to the reference since the reference performs a process that is identical to the instant process. See MPEP 2112.

#### ***Allowable Subject Matter***

Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Claims 20-23 are allowed.

The prior art fails to disclose or suggest the claimed process in which the zeolite is crystallized in a time of less than 3600 seconds or 5 minutes to 6 hours.

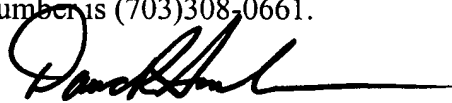
***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (703)308-3825. The examiner can normally be reached on Monday to Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703)308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.



David Sample  
Primary Examiner  
Art Unit 1755

DRS  
August 7, 2003